

Contingent Valuation Method: Valuing Cultural Heritage

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Abstract

Cultural heritage is not easy to be valued in a market because it is a very unique product which gives a community (ies), nation(s) an identity and a sense of belonging. Debate on the valuation of cultural heritage surrounds despite growing attention by economists and policy makers. The attention on the estimation of economic values for cultural goods and services has been great by economics throughout the past two decades (Choi, et al., 2009; Kaminski, McLoughlin, & Sodagar, 2007; Navrud & Ready, 2002, Noonan, 2003; Venkatachalam, 2004). The two stated preference methods which are commonly used in valuing non-use goods; i.e. contingent valuation method and choice modelling. Each of these two valuation method has its own strengths and weaknesses and may even complement each other depending on the parameters of the study. However, according to Kaminski et al., 2007; Noonan, 2003, the usage of choice modelling to estimate cultural values has been limited due to the growing usage of contingent valuation. Therefore, this paper will discuss contingent valuation method in valuing amenities and aim to contribute the knowledge on contingent valuation method for nonmarket goods.

1. Introduction

People all over the world need to be made aware of the importance of cherishing our varied heritage, both the treasures of our physical cultural heritage and the intangible heritage of traditions and cultural practices. In learning to appreciate and value our own heritage, we can learn to appreciate the heritage of other cultures. This is an essential step towards ensuring peaceful dialogue and mutual understanding among nations. Furthermore, heritage preservation is essential if we are to retain the wealth of our cultural diversity and ensure that the world is enriched rather than impoverished by globalization.

Heritage includes different forms of cultural capital “which embodies the community’s value of its social, historical, or cultural dimension” (Throsby, 1997, p.15). Heritage covers a large range of goods, whose definition changes over time and space and depends on the variety of dimensions eg symbolic, cultural, national identity-oriented and social. (Chastel, 1986).

According to Throsby (2006), heritage is something inherited from the past and attaching the adjective “cultural” to it defines its scope more precisely. It refers to inherited things that have some cultural significance. Based on a study by Peacock (1997, p.195), he argued that heritage is “an intangible service increasing the utility of consumers, in which historic buildings and artifacts are inputs”. With this definition, it recognizes the existence of substitutes for goods that have some characteristics in common. This conception presents the advantage of including services offered through new technologies.

Tangible and intangible heritage attracted an increasing number of domestic and international tourists as the needs of the tourists have evolved from mere satisfaction of curiosity and relaxation to a learning and appreciation of local heritage, which includes both tangible and intangible (Graburn,1989).

2. Characteristics of Cultural Heritage

According to the 1972 World Heritage Convention, cultural heritage may be directly or tangibly associated with living traditions, ideas or beliefs, artistic and literary works of universal significance. Heritage sites are invaluable because of their significance to a former era of humankind; visitors of authentically preserved cultural heritage sites might feel transported to the previous era. The term intangible cultural heritage can be used interchangeably with the term living heritage. Culture such as dances, music, theatre and craft traditions are invaluable because they manifest dynamic communities and groups in response to their environment, their interaction with nature and their history they provide communities with a sense of

identity and continuity. Heritage are bound to tradition and also constantly evolving and depends on the community to maintain and transmit them to future generations.

Cultural goods can be seen where they have public good characteristics, where indivisibility characteristic prevails. The consumption of publicly-owned goods is identical for all consumers. The other characteristic is externality, a source of market failure for heritage goods. Heritage constitutes a legacy to be passed on to future generations known as bequest value. Heritage also confers benefits on individual citizens, who have not contributed to their production or preservation. Moreover, excludability is not always possible or desirable. Greffe (1999), addressed the question whether to charge a price or not (when possible) on cultural heritage. He analysed price discrimination policies in heritage buildings and sites, emphasizing the lack of clarity due to the large variety of policies.

There are characteristics of cultural goods which give rise to their cultural value, aptly named, aesthetic properties, spiritual significance, role as purveyors of symbolic meaning, historic importance, its significance in influencing artistic trends, authenticity, integrity, uniqueness and many more (Throsby, 2003)

3. Economic Valuation

Although there are aspects of cultural value that cannot be expressed in monetary terms, this does not imply that the implicit cultural value assigned to a cultural good in an economy study is zero. In the past, heritage experts tend to regard economists as being insensitive and heavy-handed, focused too single-mindedly on financial measurement, and overlooking the true cultural significance of heritage assets (Cannon-Brookes, 1996). There is a distinction value of cultural goods and services between economic and cultural value (Hutter & Throsby, 2008).

The definition of benefits as willingness to pay implies the existence of a demand curve for the effects of improved amenities quality. Benefits can be taken to be equal to the area under the demand curve. Benefit estimation involves determining the shape of the demand curve for amenities quality.

In economics, the usual practice is to use money as the standard welfare measurement because it is finely divisible, and it represents general purchasing power of a large range of goods and services. Money will make a particularly effective measurement for the benefits of non-use goods. Benefits and cost that occurred with a change in the quantity of an environmental amenity is measured in terms of individual preferences¹.

The measurement of benefits is the willingness-to-pay (WTP) or the willingness-to-accept (WTA) compensation to forgo that benefit. On the other hand, the measurement of cost is the WTP to avoid suffering the loss of welfare, or the WTA to suffer that loss. These measurement of benefits and costs underlie the concept of economic efficiency, where economic efficiency increases if the sum of the benefits to the gainers (due to reallocation of resources) exceeds the sum of the costs to the losers (Bateman et al., 2002).

There are two methods for measuring the WTP and WTA, namely the Revealed Preference (RP) method and the Stated Preference (SP) method. The main difference between these two methods is that RP method draws data from observations of actual choices made by people in the real world, while the SP method gathers data from people's responses to hypothetical questions instead. Therefore, the RP methods cannot be used when there is non-use values involved. Benefits and cost that occurred with a change in the quality of an environmental amenity are measured in terms of individual preferences. As mentioned earlier, money is used as a standard welfare measurement. Figure 1 illustrates the overview available economic measurement techniques for use value and non-use value.

¹ It is assumed that an individual's well-being can be represented by an ordinal utility function.

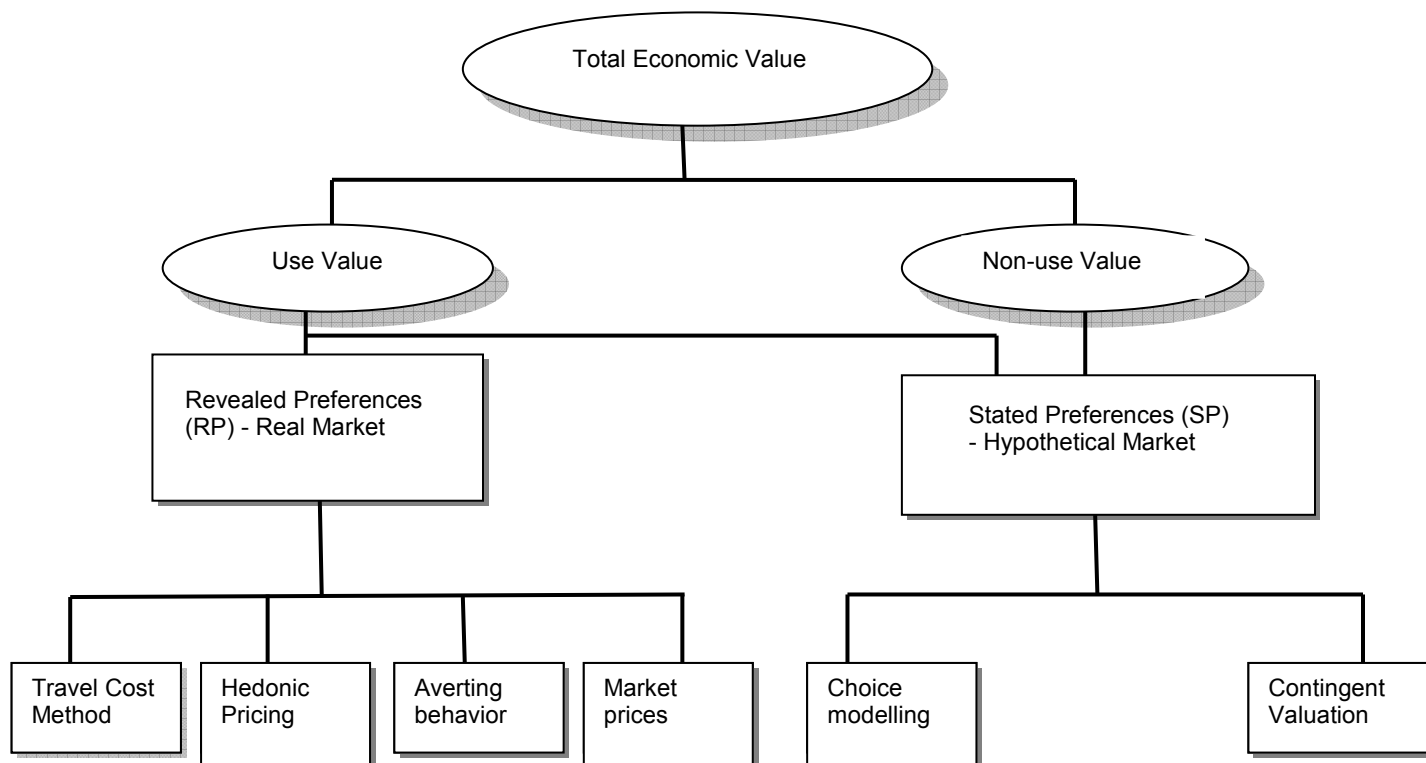


Figure 1 Economic valuation techniques, Source: Andy S. Choi et al (2009) modified from Fig.1.4 of Bateman et al. (2002: p.30)

4. Contingent Valuation Method (CVM)

CVM is used to estimate economic values for all ecosystems and environmental services. It can be used to estimate both use and non-use values, and it is the most widely used method for estimating non-use values. This method involves directly asking individual, in a survey, how much they would be willing to pay for specific environmental services. Individuals are asked for the amount of compensation they would be willing to accept to give up specific environmental services. It is called contingent valuation because people are asked to state their willingness to pay, contingent on a specific hypothetical scenarios and description of the environmental service. The fact that CVM is based on what people say they would do, as opposed to what people are observed to do is its greatest strengths and its greatest weaknesses as well.

CVM is a survey approach designed to create the missing market for public goods by determining what people would be willing to pay (WTP) for specified changes in the quantity or quality of such goods, or more rarely, what they would be willing to accept (WTA) in compensation for well-specified degradations in the provision of these goods (Hanemann 1994; Bateman et al. 2002). CVM circumvents the absence of markets for natural resource services by presenting consumers with a choice situation in which they have the opportunity to buy or sell the services in question. The overview of CVM application in various research studies should be necessarily appreciated in order to facilitate the discussion of the method.

Based on Hanley & Spash, (1993); Chan (2009), the CVM is generally divided into six stages. These stages are as follows:

1. Setting the hypothetical market;
2. Obtaining bids;
3. Estimating mean willingness-to-pay (WTP) or willingness-to-accept (WTA), or both;
4. Estimating bid curves;
5. Aggregating the data; and
6. Evaluating the CVM exercise

5. The Use of CVM To Assess Environmental Amenities

One of the earliest practical applications of the contingent valuation method to elicit the market valuation for nonmarket goods was by Davis (1963) where he estimated the value that hunters and tourists placed on a particular wilderness area. In his study, he found a significant correlation survey result using estimation on the travel cost method. CVM was even recommended as the assessment when US government agencies were given the power to sue for damage to environmental resources (included non-use, or existence values) in the 1980s.

The importance of valuing nonmarket goods was brought to light with the Exxon Valdez oil spill in Prince William Sound. Carson et al., (1994) used CVM in a quantitative assessment of damages for the Exxon Valdez oil spill in Prince William Sound case. This case used the most carefully developed CVM questionnaires at that time. Another significant case of CVM application is valuing the preservation of Australia's Kakadu Conservation Zone conducted by Carson et al., (1994). Both of the studies were funded by their government respectively and both studies also involved a great and in-depth exploring of the CVM application on these projects. These studies give a great insight to CVM especially in their step-by-step approach and the development of the hypothetical scenarios to represent the assessment of environmental amenities.

6. Assumptions Used In CVM

There are several assumptions used in CVM in eliciting the value of non-use goods in the market. It is to be reminded again that CVM is predicted on a model of an economy comprised of individual decision makers who behave rationally in maximizing their own utility taking the considerations of known constraints. It is assumed that individuals are the best judges of their own welfare, where each individual carries equal weight in the aggregation of preferences. CVM works under a well-behaved preference system between goods and the social welfare function contains no arguments other than the welfare of the individuals of which society is composed. Generally, CVM accepts that consumers have well-defined preferences for public goods and that this demand can be measured by the amount of other goods that they are prepared to sacrifice to acquire a unit of the good in question.

7. Strengths and Limitations of CVM

There are claims that WTP studies can be bias. Biases such as free-riding, the embedding problem, starting-point bias, mixed-good bias etc, can now be effectively controlled for, at least their effects on estimated WTP on the study by Mitchell and Carson (1989). However, the main problem when CVM takes on a specific significance when WTP techniques are applied to cultural goods is the information problem, or in a more precise manner, its converse ignorance. In CVM, it is well-known that the amount of information provided to respondents has a critical effect on their WTP judgments, with well-informed judgments are better than ill-informed judgments. According to Throsby, (2003) study, in an "ordinary" public good such as national defense or even environmental amenity, it would be able to provide enough information for an informed response to be generated, at least in principle. However, distinguish feature of cultural goods acquires a taste for them takes time, where they are classed as experiential, their demand

is cumulative, and hence it would be dynamically unstable. Throsby, (2003) stated that individual's WTP will not be able to provide a complete view of the nonmarket value of a cultural good. For example, an individual may acknowledge that a good has a value to him/her but he/she cannot meaningfully represent the benefit he/she gained from this good in monetary terms. Other than that, an individual may enjoy the benefits of being identified as a human being (sharing a common humanity with his/her fellow citizens), but neither he/she are likely able to express the value of this identity in monetary terms, since it is not exchangeable for other goods. Another issue arise from CVM is on the hypothetical market of a nonmarketed good. Hypothetical market for nonmarketed good does not encompass a common ground that both researchers and subjects anticipate.

The CVM should be opted when the WTP for the environmental amenity in total is required, as opposed to the WTP for comparison of different values for individual attributes of the amenity (Bateman et al, 2002). Therefore, if the researcher would like to find out the value of conserving the current level of a cultural heritage as a whole, the CVM should be chosen. Meanwhile, if the researcher, on the other hand, would like to find the value of observing one level of a cultural heritage versus a different level of the cultural heritage, then the Choice Modeling (CM)² method should be opted.

8. Conclusion

CVM lies under a set of assumptions and based on hypothetical scenarios and questions. Despite its underlying weaknesses, quite a number of progresses have been made in refining CVM techniques to overcome the formidable difficulties in its application. There have been vast studies on the estimation of economic values for nonmarket goods throughout the past two decades. Although there is a growing recognition of the broader economic value of cultural goods by academics, government policy makers and industry, there are not many studies undertaken in Malaysia to estimate their economic value across the whole nation. The future research can be done on valuing the benefits of preserving the cultural living heritage in Malaysia, a developing nation using various SP approaches in a hypothetical market.

² Choice modelling attempts to model the decision process of an individual or segment in a particular context. Choice modelling may also be used to estimate nonmarket environmental benefits and costs. It is another SP method available for making probabilistic predictions about human decision making behaviour.

References

1. Andy S. Choi, Brent W. Ritchie, Franco Papandrea, Jeff Bennett. (2009). 'Economic valuation of cultural heritage sites: A choice modeling approach', *The Tourism Management*, 31(2010), 213-220.
2. Bateman, I. J., Carson, R. T., Day, B., Hanemann, M., Hanley, N., Hett, T., (2002), 'Economic valuation with stated preference techniques: A manual', Northampton, MA: Edward Elgar.
3. Cannon-Brookes, Peter (1996), "Cultural-economic analysis of art museums: a British curator's viewpoint", in Victor Ginsburgh and Pierre-Michel Menger (eds.), *Economics of the Arts: Selected Essays*. Amsterdam: North-Holland, pp. 255–277.
4. Carson, R.T., Wilks, L. and Imber, D. (1994). 'Valuing the Preservation of Australia's Kakadu Conservation Zone', *Oxford Economic Papers*, New Series, 46, 727-749.
5. Chastel, A. (1986), 'La notion de patrimoine', in P. Nora (ed.), *Les lieux de mémoire*, Vol. 2, Paris: Gallimard, pp. 405–50.
6. Davis, R. (1963). 'Recreation planning as an economic problem', *Natural Resources Journal*, 3(2), 239-249.
7. Graburn N. (1989) *Tourism: The Sacred Journey*, Smith V. L. (ed.), *Hosts and Guests: The Anthropology of Tourism*, Basil Blackwell 2nd Edition.
8. Greffe, X. (1999), *La gestion du patrimoine culturel*, Paris: Anthropos.
9. Hanemann, W.M. (1994). 'Valuing the environment through contingent valuation', *Journal of Economic Perspectives*, 8(4), 19-43.
10. Hanley, N. and Spash, C.L., (1993). 'Cost-Benefit Analysis and the Environment', Edward Elgar Publishing Limited
11. Hutter, Michael and David Throsby (eds.) (2008), *Beyond Price: Value in Culture, Economics, and the Arts*, New York: Cambridge University Press.
12. Kaminski, J., McLoughlin, J., & Sodagar, B. (2007). 'Economic methods for valuing European cultural heritage sites (1994–2006)'. In J. McLoughlin, J. Kaminski, & B. Sodagar (Eds.), *Perspectives on impact, technology and strategic management* (pp. 98–121). Budapest: EPOCH
13. Lilian M.L. Chan, (2009), 'The conservation of a living heritage in inner George Town, Penang Island', PhD thesis submitted to School graduate Studies, Universiti Putra Malaysia.
14. Mitchell, R.C. and Carson, R.T. (1989). 'Using surveys to value public goods" the contingent valuation method', *Resources for the future*, Washington DC.
15. Navrud, S., & Ready, R. C. (Eds.). (2002). 'Valuing cultural heritage: Applying environmental valuation techniques to historic buildings, monuments and artifacts', Cheltenham, UK: Edward Elgar.
16. Noonan, D. (2003). 'Contingent valuation and cultural resources: A meta-analytic review of the literature', *Journal of Cultural Economics*, 27, 159–176.
17. Peacock, A. (1997), 'A Future for the Past: the Political Economy of Heritage', in R. Towse (ed.), *Cultural Economics: the Arts, the Heritage and the Media Industries*, vol.1, Cheltenham, UK and Lyme, US: Edward Elgar, pp. 189–243.

18. Throsby, D. (1997). 'Seven Questions in the Economic of Cultural Heritage'. *Economic Perspectives on Cultural Heritage*, eds. Michael Hutter and Ilde Rizzo, St. Martins Press Inc., New York, 13-30.
19. Throsby,D. (2003). 'Determining the Value of cultural goods: How much (or how little) does contingent valuation tell us? , *Journal of Cultural Economics*, 27, 275-285
20. Throsby,D., (2006), 'Paying for the past: Economics, Cultural Heritage and Public Policy, Text of Joseph Fisher Lecture, delivered at the University of Adelaide, 16 August, 2006.
21. Venkatachalam, L. (2004). 'The contingent valuation method: a review', *Environmental Impact assessment Review*, 24(1), 89-124